

ABSTRACT OF THE DISCLOSURE

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5 A piezoelectric/electrostrictive (P/E) device includes at least one actuator section secured to thin plate sections with an adhesive. The actuator section includes a multilayered member including at least three actuator films, each of which include a P/E layer and electrode films. One or more holes or recesses are formed in portions of the thin plate sections on which the P/E elements are formed. The electrode films contact upper and lower surfaces of respective P/E layers and alternately extend to opposite

10 surfaces thereof. End surface electrodes electrically connect an electrode film that contacts one of the P/E layers and an electrode film that contacts another one of the P/E layers. The end surface electrodes are electrically connected to terminals which are provided on a surface of an outermost layer of the P/E layers, and which are separated from one another by a predetermined distance.

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Substitute abstract

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5 A piezoelectric/electrostrictive device comprises a pair of mutually opposing thin plate sections, a movable section, and a fixation section for supporting the thin plate sections and the movable section; piezoelectric/electrostrictive elements arranged on at least one thin plate sections of the pair of thin plate sections; and a hole formed by both inner walls of the pair of thin plate sections, an inner wall of the movable section, and an inner wall of the fixation section, wherein the pair of thin plate sections are made of metal. Accordingly, it is possible to realize a long life time of the device, increase the displacement of the movable section, and realize a high speed (realize a high resonance frequency). Further, it is possible to improve the handling performance of the device and the performance for attaching a part to the movable section or the performance for fixing the device.